Date:

July 19, 2007

To:

Office of the Secretary
Federal Communications Commission
445 12th Street SW, TW-A325
Washington DC 20554

Re:

Coordination of Microwave Links under Part 101 of the Commission's Rules, WTB Docket No. 07-121, DA 07-2684

Proximetry is in favor of the Request for Declaratory Ruling filed by WSI and referenced in WTB Docket No. 07-121 (DA 07-2684).

We support WSI's contention that Fixed Microwave Systems deployed with Distributed Radiating Elements ("smart antennas") would operate within the commission's rules and would not interfere with surrounding users.

Proximetry is a privately held San Diego company that provides carrier-class network and performance management solutions for wireless networks to enable network operators to visualize, provision, and optimally manage their networks. AirSync, the company's software solution, is a comprehensive performance and network management tool that enables real-time visualization and management from a single system and location for multivendor, multiprotocol, multifrequency wireless networks.

We work with public safety agencies, municipalities, enterprises and others to deploy and manage their hybrid wireless networks and ensure Quality of Service throughout the network. As such we like the approach of flexible use and see it as a quick and easy way for license holders to maximize use of their spectrum licenses with little or no downside.

Specifically, we have evaluated the core technology behind WSI's assertions, and after extensive technical discussions with our industry peers, our own research coupled with our thorough understanding of the Wi-Fi, WiMAX, and other wireless standards, we have concluded that using smart antenna technology coupled with TDMA systems makes this new flexible use approach deployable under the requirements of 47 CFR

Section 101.115 as a noninterfering use of the spectrum license.

In the case of antenna systems with DREs, the interference at the input of any victim receiver from any DRE will always be less than the interference from the related coordinated antenna system or 6dB below the victim receiver's thermal threshold (the coordinated antenna system interference governs).

In particular:

- * Smart antenna systems are designed to focus RF energy into a very narrow main lobe to enhance performance. Current smart antenna technology enables the construction of antennas that exhibit main lobes that are substantially narrower than those of passive antennas (i.e. parabolic dishes), meeting the requirements set forth in the Antenna Standards table of Section 101.115. See http://www.iec.org/online/tutorials/smart_ant/topic03.html. WSI's request opens up a very large US market for smart antennas and TDD-packet (802.16 based) products. Once given the opportunity, the industry will develop innovative products.
- * Smart antenna systems coupled with advanced Operational Support Systems (such as Proximetry's AirSync) are able to manipulate the narrow main lobe such that it is directed at the receiving station.
- * In addition, smart antenna systems are able to manipulate not only the main lobe, but also the portions of the pattern with the least gain (the "nulls"). This enables an intelligent OSS to direct the nulls towards any other licensee adding additional margin of interference protection over and above those set forth in the part 101 rules.
- * Smart antenna systems support enhanced channel estimation which, among other things, enables the radio system to transmit with the minimum power required for error free reception, reducing interference potential over passive systems.

These characteristics of smart antennas are just some of the reasons that advanced wireless communication standards such as WiMAX, LTE, and NG-PHS mandate that multiple antenna systems are employed. In addition to operating within the rules and not interfering with other licensed users, granting the requested declaratory ruling to permit deployment of smart antenna technology yields additional benefits including

* Deployment of additional service(s) without requiring any

additional spectrum;

- * Service provisioning and activation time reduced from weeks to hours;
- * Increased competition for broadband delivery -- or end-user service in places where it is not presently available,
- Less demand on Commission licensing resources;
- * Large and expensive antennas not required for the subscriber end of concurrently coordinated links;
- Suitable for inexpensive (WiMAX) equipment;
- * Additional subscriber (retail) revenue increases the provider's return on investment, and;
- Lower user prices overall.

And finally, the grant of the requested declaratory ruling will directly support stated Commission goals:

- * To maximize efficient use of spectrum;
- To minimize regulation where appropriate, and;
- To facilitate innovative service and product offerings[1]
- 1. The Commission is under increasing demands to accommodate more users in existing spectrum. Through innovation, it is now possible for industry to make more effective use of co-frequency spectrum in near proximity to a Fixed Service transmitter to support both the traditional base of critical infrastructure and business communications, and also incoming services (WiMAX) and future advanced services (4G and beyond). A ruling to confirm that antennas with distributed radiating elements are permitted under Part 101, as described above, will put that wasted spectrum into productive service.

Please place this response, in support of the Proposed Declaratory Ruling, in the Docket.

Sincerely,

/s/ Tracy Trent

behalf of Mr. Trent)
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